

SEQUENCE LISTING

<110> Jialin, Sun

<120> A superantigen fusion protein for anti-cancer therapy and methods for the production thereof

<130> 09548.1019USWO

<140> 10/571,836

<141> 2006-03-15

<150> PCT/CN2004/000569

<151> 2004-05-31

<150> CN 200310109829.7

<151> 2003-12-21

<160> 15

<170> PatentIn version 3.1

<210> 1

<211> 903

<212> DNA

<213> artificial sequence

<220>

<221> misc_feature

<222> (1)..(903)

<223> coding sequence of fusion protein

<400> 1

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atgtatat	aggctctaga	caagtacgcg	tgtaattg	ttgttggcta	catcgggtgag	120
cgctgtcagt	atcgagatct	gaaatggtgg	gaacttagag	gtggaggcgg	ttcaggcgga	180
ggtggctctg	gcggtggcgg	atcgagcgag	aaaagcgaag	aaataaatga	aaaagatttg	240
cgaaaaaagt	ctgaattgca	gggaacagct	ttaggcaatc	ttaaacaagt	ctattattac	300
aatgaaaaag	ctaaaactga	aaataaagag	agtcacgac	aattttttaca	gcatactata	360
ttgttttaag	gcttttttac	agatcattcg	tggtataacg	attttattagt	agattttgat	420
tcaaaggata	ttgttgataa	atataaagg	aaaaaagtag	acttgtagtg	tgcttattat	480
ggttatcaat	gtgcgggtgg	tacaccaa	aaaacagctt	gtatgtatgg	tggtgtaacg	540
ttacatgata	ataatcgatt	gaccgaagag	aaaaaagtag	cgatcaattt	atggctagac	600
ggtaaacaaa	atacagtacc	tttggaacg	gttaaacga	ataagaaaaa	tgtaactgtt	660
caggagttag	atcttcaagc	aagacgttat	ttacaggaaa	aatataattt	atataactct	720
gatgtttttg	atgggaaggt	tcagagggga	ttaatcgtgt	ttcatacttc	tacagaacct	780
tcggttaatt	acgattttat	tggtgctcaa	ggacagtatt	caaatacact	attaagaata	840
tatagagata	ataaacgat	taactctgaa	aacatgcata	ttgatataata	tttatataca	900
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<210> 2

<211> 301

<212> PRT

<213> artificial sequence

<220>

<221> misc_feature

<222> (1)..(301)

<223> fusion protein

<400> 2

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Asp	Gly	Val	Cys	Met	Tyr	Ile	Glu	Ala	Leu	Asp	Lys	Tyr	Ala	Cys	Asn
			20					25					30		
Cys	Val	Val	Gly	Tyr	Ile	Gly	Glu	Arg	Cys	Gln	Tyr	Arg	Asp	Leu	Lys
		35					40					45			
Trp	Trp	Glu	Leu	Arg	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly
	50					55					60				
Gly	Gly	Gly	Ser	Ser	Glu	Lys	Ser	Glu	Glu	Ile	Asn	Glu	Lys	Asp	Leu
65					70					75					80
Arg	Lys	Lys	Ser	Glu	Leu	Gln	Gly	Thr	Ala	Leu	Gly	Asn	Leu	Lys	Gln
			85						90					95	
Ile	Tyr	Tyr	Tyr	Asn	Glu	Lys	Ala	Lys	Thr	Glu	Asn	Lys	Glu	Ser	His
			100					105					110		
Asp	Gln	Phe	Leu	Gln	His	Thr	Ile	Leu	Phe	Lys	Gly	Phe	Phe	Thr	Asp
		115					120					125			
His	Ser	Trp	Tyr	Asn	Asp	Leu	Val	Asp	Phe	Asp	Ser	Lys	Asp	Ile	
	130					135				140					
Val	Asp	Lys	Tyr	Lys	Gly	Lys	Lys	Val	Asp	Leu	Tyr	Gly	Ala	Tyr	Tyr
145					150					155					160
Gly	Tyr	Gln	Cys	Ala	Gly	Gly	Thr	Pro	Asn	Lys	Thr	Ala	Cys	Met	Tyr
			165						170					175	
Gly	Gly	Val	Thr	Leu	His	Asp	Asn	Asn	Arg	Leu	Thr	Glu	Glu	Lys	Lys
		180						185					190		
Val	Pro	Ile	Asn	Leu	Trp	Leu	Asp	Gly	Lys	Gln	Asn	Thr	Val	Pro	Leu
		195					200					205			
Glu	Thr	Val	Lys	Thr	Asn	Lys	Lys	Asn	Val	Thr	Val	Gln	Glu	Leu	Asp
	210					215					220				
Leu	Gln	Ala	Arg	Arg	Tyr	Leu	Gln	Glu	Lys	Tyr	Asn	Leu	Tyr	Asn	Ser
					230					235					240
Asp	Val	Phe	Asp	Gly	Lys	Val	Gln	Arg	Gly	Leu	Ile	Val	Phe	His	Thr
			245						250					255	
Ser	Thr	Glu	Pro	Ser	Val	Asn	Tyr	Asp	Leu	Phe	Gly	Ala	Gln	Gly	Gln
		260					265						270		
Tyr	Ser	Asn	Thr	Leu	Leu	Arg	Ile	Tyr	Arg	Asp	Asn	Lys	Thr	Ile	Asn
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Ser	Glu	Asn	Met	His	Ile	Asp	Ile	Tyr	Leu	Tyr	Thr	Ser			
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<210> 3
 <211> 1107
 <212> DNA
 <213> artificial sequence
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 <221> misc_feature
 <222> (1)..(1107)
 <223> coding sequence of fusion protein

<400> 3

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gatgagatcg	agtacatctt	caagccatcc	tgtgtgcccc	tgatgcatg	cgggggctgc	180
tgcaatgacg	agggcctgga	gtgtgtgccc	actgaggagt	ccaacatcac	catgcagatt	240
atgcggatca	aacctcacca	aggccagcac	ataggagaga	tgagcttcct	acagcacaac	300
aaatgtgaat	gcagaccaa	gaaagataga	gcaagacaag	aaaaatgtga	caagccgagg	360
cggggtggag	gcggttcagg	cggaggtggc	tctggcggtg	gcggatcgag	cgagaaaagc	420
gaagaaataa	atgaaaaaga	tttgcaaaa	aagtctgaat	tcaggggaac	agcttttaggc	480

aatcttaaac	aaatctatta	ttacaatgaa	aaagctaaaa	ctgaaaataa	agagagtcac	540
gatcaatttt	tacagcatac	tatattgttt	aaaggctttt	ttacagatca	ttcgtggtat	600
aacgatttat	tagtagattt	tgattcaaaag	gatattgttg	ataaatataa	agggaaaaaa	660
gtagacttgt	atggttgctta	ttatggttat	caatgtgctg	gtggtacacc	aaacaaaaaa	720
gcttgatgt	atggtgggtg	aacgttacat	gataataatc	gattgaccga	agagaaaaaa	780
gtgccgatca	atttatggct	agacggtaaa	caaaatacac	tacctttgga	aacgggttaa	840
acgaataaga	aaaatgtaac	tgttcaggag	ttggatcttc	aagcaagacg	ttattttacag	900
gaaaaatata	atttatataa	ctctgatgtt	tttgatggga	aggttcagag	gggattaatc	960
gtgtttcata	cttctacaga	accticgggt	aattacgatt	tatttggtgc	tcaaggacag	1020
tattcaata	cactattaag	aatatataga	gataataaaa	cgattaactc	tgaaaacatg	1080
catattgata	tatatttata	tacaagt				1107

<210> 4
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 <212> PRT
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<220>
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 <222> (1)..(369)
 <223> fusion protein

<400> 4

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			20				25					30			
Val	Asp	Ile	Phe	Gln	Glu	Tyr	Pro	Asp	Glu	Ile	Glu	Tyr	Ile	Phe	Lys
		35					40				45				
Pro	Ser	Cys	Val	Pro	Leu	Met	Arg	Cys	Gly	Gly	Cys	Cys	Asn	Asp	Glu
	50				55				60						
Gly	Leu	Glu	Cys	Val	Pro	Thr	Glu	Glu	Ser	Asn	Ile	Thr	Met	Gln	Ile
65				70					75					80	
Met	Arg	Ile	Lys	Pro	His	Gln	Gly	Gln	His	Ile	Gly	Glu	Met	Ser	Phe
			85						90					95	
Leu	Gln	His	Asn	Lys	Cys	Glu	Cys	Arg	Pro	Lys	Lys	Asp	Arg	Ala	Arg
			100					105					110		
Gln	Glu	Lys	Cys	Asp	Lys	Pro	Arg	Arg	Gly	Gly	Gly	Gly	Ser	Gly	Gly
		115					120					125			
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Ser	Glu	Lys	Ser	Glu	Glu	Ile	Asn
	130					135					140				
Glu	Lys	Asp	Leu	Arg	Lys	Lys	Ser	Glu	Leu	Gln	Gly	Thr	Ala	Leu	Gly
145					150				155					160	
Asn	Leu	Lys	Gln	Ile	Tyr	Tyr	Tyr	Asn	Glu	Lys	Ala	Lys	Thr	Glu	Asn
			165					170						175	
Lys	Glu	Ser	His	Asp	Gln	Phe	Leu	Gln	His	Thr	Ile	Leu	Phe	Lys	Gly
			180				185						190		
Phe	Phe	Thr	Asp	His	Ser	Trp	Tyr	Asn	Asp	Leu	Leu	Val	Asp	Phe	Asp
		195					200					205			
Ser	Lys	Asp	Ile	Val	Asp	Lys	Tyr	Lys	Gly	Lys	Lys	Val	Asp	Leu	Tyr
	210					215					220				
Gly	Ala	Tyr	Tyr	Gly	Tyr	Gln	Cys	Ala	Gly	Gly	Thr	Pro	Asn	Lys	Thr
225					230				235					240	
Ala	Cys	Met	Tyr	Gly	Gly	Val	Thr	Leu	His	Asp	Asn	Asn	Arg	Leu	Thr
			245						250					255	
Glu	Glu	Lys	Lys	Val	Pro	Ile	Asn	Leu	Trp	Leu	Asp	Gly	Lys	Gln	Asn
			260					265					270		
Thr	Val	Pro	Leu	Glu	Thr	Val	Lys	Thr	Asn	Lys	Lys	Asn	Val	Thr	Val
		275				280						285			
Gln	Glu	Leu	Asp	Leu	Gln	Ala	Arg	Arg	Tyr	Leu	Gln	Glu	Lys	Tyr	Asn
	290				295						300				
Leu	Tyr	Asn	Ser	Asp	Val	Phe	Asp	Gly	Lys	Val	Gln	Arg	Gly	Leu	Ile
305					310					315				320	

Val Phe His Thr Ser Thr Glu Pro Ser Val Asn Tyr Asp Leu Phe Gly
 325 330 335
 Ala Gln Gly Gln Tyr Ser Asn Thr Leu Leu Arg Ile Tyr Arg Asp Asn
 340 345 350
 Lys Thr Ile Asn Ser Glu Asn Met His Ile Asp Ile Tyr Leu Tyr Thr
 355 360 365
 Ser

<210> 5
 <211> 45
 <212> DNA
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<220>
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 <222> (1)..(45)
 <223> primer

<400> 5
 ggtggaggcg gttcaggcgg aggtggctct ggcgggtggcg gatcg 45

<210> 6
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 <212> PRT
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<220>
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 <222> (1)..(15)
 <223> linker peptide

<400> 6
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 7
 <211> 34
 <212> DNA
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<220>
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 <222> (1)..(34)
 <223> primer

<400> 7
 gagcccgggc agcgagaaaa gcgaagaaat aaat 34

<210> 8
 <211> 40
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<220>
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 <222> (1)..(40)
 <223> primer

<400> 8
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 <220>
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 <222> (1)..(28)
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 <400> 10
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 <222> (1)..(31)
 <223> primer

 <400> 11
 gagcccgggc gcacccatgg cagaaggagg a 31

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 <222> (1)..(54)
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 <400> 13

gccagagcca cctccgcctg aaccgcctcc acctctaagt tcccaccatt tcag 54

<210> 14
<211> 60
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<221> misc_feature
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<223> primer

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<220>
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<222> (1)..(57)
<223> primer

<400> 15
gccagagcca cctccgcctg aaccgcctcc accccgcctc ggcttgacac atttttc 57